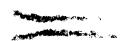
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AMENDMENTS TO THE CLAIMS

A list of claims follows, including those to be amended:

- 1. (Currently Amended) A bimodal polyethylene comprising ethylene derived units and units derived from at least one of a C₄ to C₁₂ olefin; wherein the polyethylene has a density of from 0.940 to 0.970 g/cm³; an I₂₁/I₂ of 80 or more; a residual Group 4 zirconium or hafnium metal content of 2.0 ppm or less; a Mw/Mn of from 20 to 60; and wherein the polyethylene comprises a high molecular weight component and a low molecular weight component, the high molecular weight component present from 40 to 60 weight percent based on the total polyethylene, and wherein the high molecular weight component has a weight average molecular weight Mw of greater than 100,000 a.m.u.
- 2. (Original) The bimodal polyethylene of Claim 1, possessing an I₂ of 0.5 g/ 10 min or less.
- (Original) The bimodal polyethylene of Claim 1, wherein the weight average molecular weight Mw of the high molecular weight component is greater than 150,000 a.m.u.
- 4. (Original) The bimodal polyethylene of Claim 1, wherein the weight average molecular weight Mw of the high molecular weight component is greater than 200,000 a.m.u.
- (Currently Amended) The bimodal polyethylene of Claim 1, wherein the zirconium or hafnium Group 4 metal residuals content is 1.8 ppm or less.
- (Original) The bimodal polyethylene of Claim 1, wherein the value of I₂₁/I₂ is greater than 90.

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- (Original) The bimodal polyethylene of Claim 1, possessing a notch tensile test 7. result of greater than 150 hours at 3.0MPa.
- (Original) The bimodal polyethylene of Claim 1, wherein a pipe with carbon 8. black formed from the polyethylene is able to withstand at least 50 years at an ambient temperature of 20°C, using water as the internal test medium and either water or air as the outside environment (Hydrostatic (hoop) stress as measured by ISO TR 9080).
- (Original) The bimodal polyethylene of Claim 1, wherein a pipe with carbon 9. black formed from the polyethylene possesses a predicted S-4 To for 110mm pipe of less than -5°C (ISO DIS 13477/ASTM F1589).
- (Original) The bimodal polyethylene of Claim 1, wherein a pipe with carbon 10. black formed from the polyethylene possesses a predicted S-4 T_o for 110mm pipe of less than -15°C (ISO DIS 13477/ASTM F1589).
- (Original) The bimodal polyethylene of Claim 1, wherein when formed into a 11. 0.5mil (13µ) film possesses an MD Tear of between about 5 g/mil and 25 g/mil.
- (Original) The bimodal polyethylene of Claim 1, wherein when formed into a 12. 0.5mil (13µ) film possesses an MD Tear of between about 15 g/mil and 25 g/mil.
- (Original) The bimodal polyethylene of Claim 1 formed in a single reactor by 13. contacting olefins and a catalyst composition comprising a Group 15 containing compound and a bulky ligand metallocene catalyst compound; wherein the Group 15 containing metal compound is represented by the formulae:

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$$R^{3}$$
 L R^{1} Y R^{6} R^{7} R^{7} R^{7} R^{5}

or

wherein M is a Group 4, 5 or 6 metal; each X is independently a leaving group;

y is 0 or 1;

n is the oxidation state of M;

m is the formal charge of the ligand comprising the YZL or YZL' groups;

L is a Group 15 or 16 element;

L' is a Group 15 or 16 element or Group 14 containing group;

Y is a Group 15 element;

Z is a Group 15 element;

 R^1 and R^2 are independently a C_1 to C_{20} hydrocarbon group, a heteroatom containing group having up to twenty carbon atoms, silicon, germanium, tin, lead, or phosphorus; wherein R^1 and R^2 may be interconnected to each other;

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- R³ is absent or a hydrocarbon group, hydrogen, a halogen, a heteroatom containing group;
- R⁴ and R⁵ are independently an alkyl group, an aryl group, substituted aryl group, a cyclic alkyl group, a substituted cyclic alkyl group, a cyclic arylalkyl group, a substituted cyclic arylalkyl group or multiple ring system; wherein R⁴ and R⁵ may be interconnected to each other;
- R⁶ and R⁷ are independently absent, or hydrogen, an alkyl group, halogen, heteroatom or a hydrocarbyl group; and
- R* is absent, or is hydrogen, a Group 14 atom containing group, a halogen, a heteroatom containing group.